

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Dror Segal et al Examiner : Timothy M Harbeck
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For : VIRTUAL TRADING FLOOR SYSTEM AND METHOD

RESPONSE TO NOTICE OF NON-COMPLIANT APPEAL BRIEF

Electronically Filed November 4, 2009

Commissioner for Patents
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This paper is being filed in response to the notice of non-compliant appeal brief dated October 9, 2009. Appellant resubmits sections V. Summary Of Claimed Subject Matter and VIII Claims Appendix, which shall replace the corresponding sections in the appeal brief dated September 2, 2008.

If any additional fee is due or over payment made in connection with this paper, Appellant authorizes the Director to charge any such fee, and credit any overpayment, to Deposit Account No. 02-4377.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Appellant's claimed subject matter relates to, inter alia, techniques for managing trading and system activity in a trading exchange and for displaying data representing the operation of an exchange having a trading area including a plurality of trading posts whereat selected securities are traded (e.g., an interactive decision support system for monitoring and responding to system and market events displayed within a two dimensional view of a three dimensional system model).

Claim 1 reads:

1. A method for managing trading and system activity in a trading exchange (e.g., page 3, line 13-page 4, line 12), the method comprising

at a centralized location (e.g., page 3, lines 2-3), providing a visual display of trading exchange activity including systems activity and trading activity to a trading exchange supervisor or manager (e.g., page 3, line 13 - page 4 line 19, page 10, line 13-page 11, line 4) ;
and

providing an interactive decision support interface coupled to the visual display of trading exchange activity (e.g., page 3, line 13 - page 4, line 12, page 10, line 13-page 11, line 4); and

wherein providing the visual display of trading exchange activity comprises:

maintaining data representing a three dimensional model of said exchange's trading areas, said model including surfaces (e.g., page 4 lines 13-19, page lines 10-page 11, line 4);

receiving and maintaining in a computer memory data representing trading exchange activity (e.g., page 3, line 13-page 4, line 12 - page 4, line 19, page 8, line 2 -page 9, line 2, page lines 10-14);

generating a two dimensional display representing an aspect view of said three dimensional model selected via the interactive decision support interface, said two dimensional display including perspective views of at least some of said surfaces of said model (e.g., page 4, lines 13-19, page 10, line 13-page 11, line 4);

generating alphanumeric images of selected data representing trading exchange activity (e.g., page 4, lines 13-19, page 10, line 13-page 11, line 4); and

mapping said alphanumeric images onto selected ones of said perspective views (e.g., page 3, line 13-page 4, line 12 - page 4, line 19, page 10, line 13-page 11, line 4).

Claim 5 reads:

5. A method for displaying data representing the operation of an exchange (e.g., page 3, line 13-page 4, line 19, page 10, line 13-page 11, line 4) having a trading area including a plurality of trading posts whereat selected securities are traded (e.g., page 13, lines 4-16), comprising:

at a centralized location (e.g., page 3, lines 2-3), providing a visual display of trading exchange activity including systems activity and trading activity to a trading exchange supervisor or manager (e.g., page 3, line 13-page 4, line 19, page 10, line 13-page 11, line 4); and

providing an interactive decision support interface coupled to the visual display of trading exchange activity (e.g., page 3, line 13-page 4, line 12, page 10, line 13-page 11, line 4); and

wherein providing the visual display of trading exchange activity comprises:

maintaining data representing a three-dimensional model of said exchange trading area, said model including model portions representing said trading posts (e.g., page 3, line 13-page 4, line 19, page 8, line 2 -page 9, line2);

receiving and maintaining in a computer memory data representing trading of said securities (e.g., page 3, line 13-page 4, line 19, page 8, line 2 -page 9, line2, page lines 10-14, page 8, line 2 -page 9, line2); and

generating a two dimensional display representing an aspect view of said three dimensional model selected via the interactive decision support interface (e.g., page 4, lines 13-19, page 10, line 13-page 11, line 4), said selected aspect view including one or more of said model portions representing said trading posts (e.g., page 8, line 2 -page 9, line2), said model portions having selectable parts being selectable and operative when selected to display further data from said computer memory correlated to said selected parts (e.g., page 14, lines 11-19).

Claim 11 reads:

11. A system for managing trading and system activity in a trading exchange (e.g., page 3, line 13-page 4, line 19), the system comprising:

at a centralized location (e.g., page 3, lines 2-3), a visual display of trading exchange activity including systems activity and trading activity (e.g., page 3, line 13-page 4, line 19, page 10, line 13-page 11, line 4);

an interactive decision support interface coupled to the visual display of trading exchange activity (e.g., page 3, line 13-page 4, line 12, page 10, line 13-page 11, line 4); and

a computer system, configured and programmed to (e.g., page 7, lines 2-5):

(a) maintain data representing a three dimensional model of said exchange trading area, said model including surfaces (e.g., page 4, lines 13-19, page lines 10-page 11, line 4);

(b) receive data from said at least one data source (e.g., page 3, line 13-page 4, line 19, page 8, line 2 -page 9, line 2, page lines 10-14);

(c) format and normalize said data to provide formatted data of a predetermined format (e.g., page 7, line 14 - page 8, line 1);

(d) store and update said formatted data in at least one memory area (e.g., page 7, line 14 - page 8, line 1);

(e) generate a two dimensional display image of a three dimensional model from an aspect view of said three dimensional model selected via the interactive decision support interface, said display image having perspective views of at least some of said surfaces of said model (e.g., page 4, lines 13-19, page 10, line 13-page 11, line 4);

(f) generate alphanumeric images of selected data (e.g., page 4, lines 13-19, page 10, line 13-page 11, line 4);

(g) map said alphanumeric images onto selected ones of said perspective views (e.g., page 3, line 13-page 4, line 19, page 10, line 13-page 11, line 4); and

(h) receive commands designating said aspect view and for retrieving further data and updating said display image (e.g., page 24, line 10-page 25, line 3);

Claim 15 reads:

15. A system for managing trading and system activity in a trading exchange (e.g., page 3, line 13-page 4, line 19, page 10, line 13-page 11, line 4) having a trading area including a plurality of trading posts whereat selected securities are traded (e.g., page 8, line 2 - page 9, line2), the system comprising:

a visual display of data representing the operations of the trading area including a plurality of trading posts whereat selected securities are traded (e.g., page 3, line 13-page 4, line 19, page 10, line 13-page 11, line 4),

an interactive decision support interface coupled to the visual display of trading exchange activity (e.g., page 3, line 13-page 4, line 12, page 10, line 13-page 11, line 4); and

a computer system, configured and programmed to (e.g., page 7, lines 2-5):

maintain data representing a three-dimensional model of said trading area, said model including model portions representing said trading posts (e.g., page 3, line 13-page 4, line 19, page 8, line 2 -page 9, line2);

receive and maintain in a computer memory data representing trading of said securities (e.g., page 3, line 13-page 4, line 19, page 8, line 2 -page 9, line2, page lines 10-14, page 8, line 2 -page 9, line2);

generate a two dimensional display representing an aspect view of said three dimensional model selected via the interactive decision support interface (e.g., page 4, lines 13-19, page 10, line 13-page 11, line 4), said selected aspect view including one or more of said model portions representing said trading posts (e.g., page 8, line 2 -page 9, line2), said model portions having selectable parts being selectable and operative when selected to display further data from said computer memory correlated to said selected parts (e.g., page 8, line 2 -page 9, line2).

VIII. Claims Appendix

The rejection of the following claims 1-23 is appealed.

1. (Previously Presented) A method for managing trading and system activity in a trading exchange, the method comprising:

at a centralized location, providing a visual display of trading exchange activity including systems activity and trading activity to a trading exchange supervisor or manager; and

providing an interactive decision support interface coupled to the visual display of trading exchange activity,

wherein providing the visual display of trading exchange activity comprises:

maintaining data representing a three dimensional model of said exchange's trading areas, said model including surfaces;

receiving and maintaining in a computer memory data representing trading exchange activity;

generating a two dimensional display representing an aspect view of said three dimensional model selected via the interactive decision support interface, said two dimensional display including perspective views of at least some of said surfaces of said model;

generating alphanumeric images of selected data representing trading exchange activity; and

mapping said alphanumeric images onto selected ones of said perspective views.

2. (original) A method as specified in claim 1 wherein there is provided the further steps of:

changing said selected aspect view of said three dimensional model;
generating a further two dimensional display representing said changed aspect view, said further two dimensional display including further perspective views of at least some of said surfaces of said model; and
mapping said alphanumeric images onto selected ones of said further perspective views in said further two-dimensional display.

3. (original) A method as specified in claim 1 wherein portions of said two dimensional display are selectable, said selectable display portions being operable when selected for displaying further data correlated to said selectable display portions.

4. (original) A method as specified in claim 3 wherein at least some of said selectable display portions comprise said perspective aspect views, and wherein said further data is correlated to data represented by said alphanumeric images mapped onto said perspective aspect views.

5. (Previously Presented) A method for displaying data representing the operation of an exchange having a trading area including a plurality of trading posts whereat selected securities are traded, comprising:

at a centralized location, providing a visual display of trading exchange activity including systems activity and trading activity to a trading exchange supervisor or manager; and

providing an interactive decision support interface coupled to the visual display of trading exchange activity,

wherein providing the visual display of trading exchange activity comprises:

maintaining data representing a three-dimensional model of said exchange trading area, said model including model portions representing said trading posts;

receiving and maintaining in a computer memory data representing trading of said securities; and

generating a two dimensional display representing an aspect view of said three dimensional model selected via the interactive decision support interface, said selected aspect view including one or more of said model portions representing said trading posts, said model portions having selectable parts being selectable and operative when selected to display further data from said computer memory correlated to said selected parts.

6. (original) A method as specified in claim 5, wherein said model portions representing said trading posts include surfaces and wherein said step of generating a two-dimensional display further comprises:

generating alphanumeric images relating to securities traded at a selected trading post and mapping said alphanumeric images into selected ones of said surfaces in said

two-dimensional display, and wherein said surfaces being operative when selected to display further data correlated to said related securities.

7. (original) A method as specified in claim 4, wherein said alphanumeric images comprise identification of said securities.

8. (original) A method as specified in claim 5, further comprising:
analyzing said data representing trading of said securities and identifying exceptional conditions relating thereto, generating image portions representing said exceptional conditions, and displaying said exceptional condition image portions in said two-dimensional display in correlation with display of model portions representing said trading posts at which said securities are traded.

9. (original) A method as specified in claim 8 wherein said exceptional condition image portions are selectable and operative when selected to display further data concerning said exceptional condition.

10. (Previously Presented) A method as specified in claim 5, further comprising:
monitoring data processing systems used in said exchange;
identifying exceptional conditions in said data processing systems and the locations of said exchange effected by said exceptional conditions; and

generating image portions representing exceptional conditions of said data processing systems and displaying said exceptional condition image portions in said two dimensional display in correlation with said location of said exchange.

11. (Previously Presented) A system for managing trading and system activity in a trading exchange, the system comprising:

at a centralized location, a visual display of trading exchange activity including systems activity and trading activity;

an interactive decision support interface coupled to the visual display of trading exchange activity; and

a computer system, configured and programmed to:

(a) maintain data representing a three dimensional model of said exchange trading area, said model including surfaces;

(b) receive data from said at least one data source;

(c) format and normalize said data to provide formatted data of a predetermined format;

(d) store and update said formatted data in at least one memory area;

(e) generate a two dimensional display image of a three dimensional model from an aspect view of said three dimensional model selected via the interactive decision support interface, said display image having perspective views of at least some of said surfaces of said model;

(f) generate alphanumeric images of selected data;

(g) map said alphanumeric images onto selected ones of said perspective views; and

(h) receive commands designating said aspect view and for retrieving further data and updating said display image.

12. (original) A system for providing an interactive display of data as specified in claim 11 wherein the computer system is further configured and programmed to:

change said selected aspect view of said three dimensional model;

generate a further two dimensional display representing said changed aspect view, said further two dimensional display including further perspective views of at least some of said surfaces of said model; and

map said alphanumeric images onto selected ones of said further perspective views in said further two-dimensional display.

13. (original) A system for providing an interactive display of data as specified in claim 11 wherein portions of said two dimensional display are selectable, said selectable display portions being operable when selected for displaying further data correlated to said selectable display portions.

14. (original) A system for providing an interactive display of data as specified in claim 13 wherein at least some of said selectable display portions comprise said perspective

aspect views, and wherein said further data is correlated to data represented by said alphanumeric images mapped onto said perspective aspect views.

15. (Previously Presented) A system for managing trading and system activity in a trading exchange having a trading area including a plurality of trading posts whereat selected securities are traded, the system comprising:

- a visual display of data representing the operations of the trading area including a plurality of trading posts whereat selected securities are traded;

- an interactive decision support interface coupled to the visual display of trading exchange activity; and

- a computer system, configured and programmed to:

- maintain data representing a three-dimensional model of said trading area, said model including model portions representing said trading posts;

- receive and maintain in a computer memory data representing trading of said securities; and

- generate a two dimensional display representing an aspect view of said three dimensional model selected via the interactive decision support interface, said selected aspect view including one or more of said model portions representing said trading posts, said model portions having selectable parts being selectable and operative when selected to display further data from said computer memory correlated to said selected parts.

16. (original) A system for displaying data representing the operation of an exchange as specified in claim 15, wherein said model portions representing said trading posts include surfaces and wherein the computer system is further configured and programmed to:

generate alphanumeric images relating to securities traded at a selected trading post and

map said alphanumeric images into selected ones of said surfaces in said two-dimensional display, and wherein said surfaces being operative when selected to display further data correlated to said related securities.

17. (original) A system for displaying data representing the operation of an exchange as specified in claim 16, wherein said alphanumeric images comprise identification of said securities.

18. (original) A system for displaying data representing the operation of an exchange as specified in claim 15, wherein the computer system is further configured and programmed to:

analyze said data representing trading of said securities and identifying exceptional conditions relating thereto;

generate image portions representing said exceptional conditions; and

display said exceptional condition image portions in said two-dimensional display in correlation with said display of model portions representing said trading posts at which said securities are traded.

19. (original) A system for displaying data representing the operation of an exchange as specified in claim 18 wherein said exceptional condition image portions are selectable and operative when selected to display further data concerning said exceptional condition.

20. (original) A system for displaying data representing the operation of an exchange as specified in claim 15, wherein the computer system is further configured and programmed to:

monitor data processing systems used in said exchange;

identify exceptional conditions in said data processing systems and the locations of said exchange effected by said exceptional conditions;

generate image portions representing exceptional conditions of said data processing systems; and

display said exceptional condition image portions in said two dimensional display in correlation with said location of said exchange.

21. (Previously Presented) A system for displaying data representing the operation of an exchange as specified in claim 15, wherein the computer system is further configured and programmed to receive and maintain in a computer memory real time and historical data integrated from several sources representing trading of said securities.

22. (Previously Presented) A system for displaying data representing the operation of an exchange as specified in claim 15, wherein the computer system is further configured and programmed to receive and maintain in a computer memory real time and historical data integrated from several sources representing trading of said securities and normalized market data.

23. (Previously Presented) The method of claim 1, further comprising using the interactive decision support interface for at least one of:

ensuring and enforcing compliance with the trading exchange's financial and operational requirements;

checking on brokers' sales practices; and

monitoring specialist operations.

For the reasons set forth in the appeal brief of September 2, 2008, the Examiner's
rejections of claims 1-23 should be reversed.

Respectfully submitted,

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